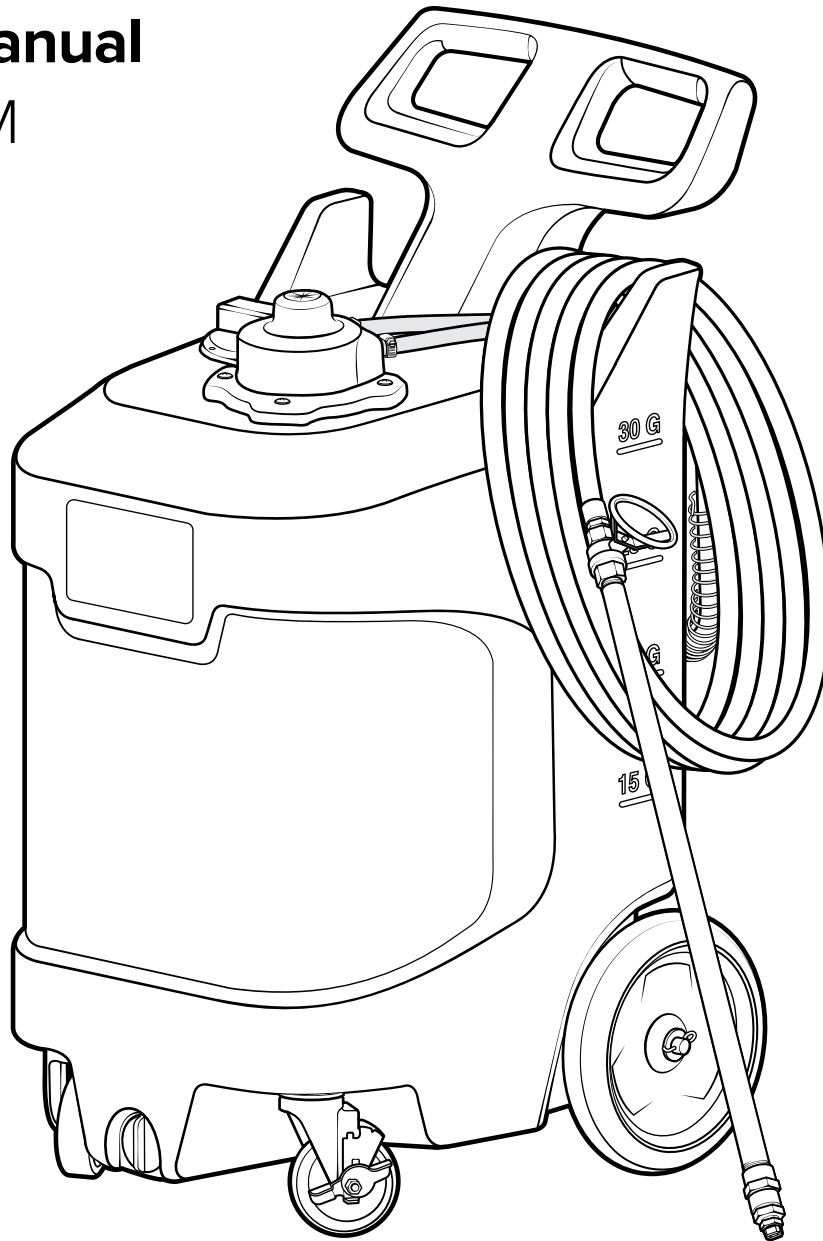


30 Gallon Gel Unit With Agitator

Service Manual

GI-30N-AM



READ ALL INSTRUCTIONS BEFORE USING OR
SERVICING THIS UNIT. KEEP THIS MANUAL IN A
LOCATION THAT IS READILY AVAILABLE TO USERS
AND SERVICE TECHNICIANS.

English (Original Instructions)



Scan this code for
service manual



Safety

WARNING

PEOPLE OR OBJECTS CAN BE HURT OR DAMAGED IF THIS UNIT IS NOT USED CORRECTLY!



Failure to read all the instructions before operating the unit may result in personal injury or death from the improper use or the chemical solution. Anyone handling, operating or using the unit must read and understand the instructions in the manual. The buyer assumes all responsibility for safety and proper use in accordance with the instructions.



Using or servicing the unit without appropriate personal protective equipment (PPE) may result in serious injury such as burns, rashes, eye, throat or lung damage and death. Always wear PPE as indicated in the Safety Data Sheet (SDS) when using or servicing the unit. Protect eyes, skin, and lungs against drifting spray.



Chemical solutions may pose a health risk and death if they contact the skin or eyes, are inhaled or swallowed. Always read and follow all chemical safety precautions and handling instructions provided by the chemical manufacturer and the SDS associated with the chemical solution before using the unit.



Pressure within the equipment may cause an unexpected release of the chemical solution and cause serious injury such as burns, rashes, eye damage, throat or lung damage and death. Always depressurize and clean the unit after each use. Release any remaining air pressure by opening the discharge ball valve. Never leave the unit unattended while pressurized.

Using the unit with fluid temperatures above 100°F (37.8°C) may result in scalding, burns, serious injury or death. DO NOT use a solution with a temperature above 100°F (37.8°C).

Operating the unit when damaged or leaking may result in exposure to chemical solutions, serious injury or death. Never use the unit if it is damaged or leaking.

Never point the discharge wand at yourself, another person, or any object you do not want covered in chemical.



Using incoming air pressure exceeding 100 psi (6.9 bar) may result in pressure buildup, explosion, serious injury or death. DO NOT exceed 100 psi (6.9 bar) incoming air pressure when operating the unit.

Use of hydrocarbons and flammable products may result in explosions, fire and serious injury or death. Never use hydrocarbons or flammable products with the unit.



Mixing an alkaline with an acid may result in a chemical reaction. Overheating of the mixture may cause it to splatter caustic compounds or release hazardous fumes, gas and vapors. Always flush the unit with fresh water thoroughly when switching from an alkaline to an acid or an acid to an alkaline.

NOTICE

Servicing or modifying this unit with parts not listed in this manual may cause the unit to operate improperly. Do not use unauthorized parts when servicing the unit.

Use of an air lubricator before the unit may result in diminished performance and damage to the unit. Do not use an air lubricator before the unit.

Moisture in the air lines will damage the pump and diminish the pump life. The air must be filtered, clean, dry and free of moisture. If needed, install an air dryer before the unit.

PROTECT THE ENVIRONMENT



Please dispose of packaging materials, old machine components, and hazardous fluids in an environmentally safe way according to local waste disposal regulations.

Service Guide

WARNING

Performing any maintenance with the unit pressurized and connected to the air supply may result in serious injury or death. Always ensure that the unit has been depressurized and disconnected from the air supply before conducting any maintenance. Servicing or modifying this unit with parts not listed in this manual may cause the unit to operate improperly. Do not use unauthorized parts when servicing the unit.

Maintaining Your Unit

To keep your unit operating properly, periodically perform the following maintenance procedures:

Note: Disconnect couplers from the air fittings before opening the backplate and servicing the unit.

- Inspect the pump for wear and leaks.
- Inspect all hoses for leaks or excessive wear. Make sure all hose clamps are in good condition and properly secured.
- Replace the filter located within the air regulator as needed. Clean by unthreading air regulator bowl from the air regulator.

- Check the suction line for debris. Clean as needed.
- Drain your air compressor tank on a regular basis to help extend pump life. An air source with a high moisture content will accelerate pump wear.

Note: If your air source has a high moisture content, install a water separator to the air fitting on the backplate. See Page 8 for more details. (Back plate assembly)

Servicing Your Unit

Most repairs on the unit can be performed with the following tools:

- Crescent wrench (2x)
- $\frac{7}{16}$ in. (11 mm) open-ended wrench
- Flat head screwdriver
- Thread seal tape
- #2 Phillips head screwdriver
- #3 Phillips head screwdriver
- Hose cutters
- Knife

Troubleshooting Your Unit

If your unit is not operating properly, try using these troubleshooting tips:

Issue	Solution
Agitator not mixing properly, or not at all.	<ul style="list-style-type: none"> Check to ensure that the agitator is below the solution level. Agitator will not mix properly if solution level is too low. If solution level is correct, the air motor assembly may need to be replaced.
Air regulator bowl or air filter has debris such as water, oil, or rust particles	<ul style="list-style-type: none"> Clean by unthreading the air regulator bowl from the air regulator.
Pump is cycling slower than normal	<ul style="list-style-type: none"> Verify air supply meets the minimum air requirements for the unit. Inspect outlet side of system for build up. Clean as needed.
Pump is cycling faster than normal	<ul style="list-style-type: none"> Inspect suction line for debris build up. Clean as needed. Verify suction line ball valve is open. Inspect suction line for holes or kinks. Remove and inspect the inlet barb fitting. Verify the o-ring is in place and in good condition.
Air passes through the pump without cycling	<ul style="list-style-type: none"> The pump needs to be replaced.
The unit operates at a reduced pressure	<ul style="list-style-type: none"> Check suction line for debris or damage. Clean or replace as needed. Check the air compressor supplying the unit. If the pressure is less than 40 psi (2.8 bar), turn off the unit until the compressor can catch up. If the air supply is 50 psi (3.4 bar) or above, check the air gauge, which should read near 50 psi (3.4 bar). If the air gauge reads more or less than 50 psi (3.4 bar), adjust the pressure by turning the knob on the top of the air regulator.

Tank Assembly

Front view

TNKA-30N-BK-AM:

30 gallon natural tank assembly for portable gel air motor units - includes black lid, drain plug, wheels, suction valve, and backplate thumb nuts

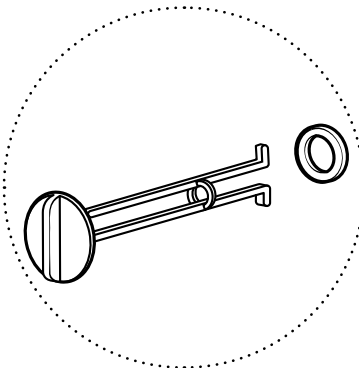
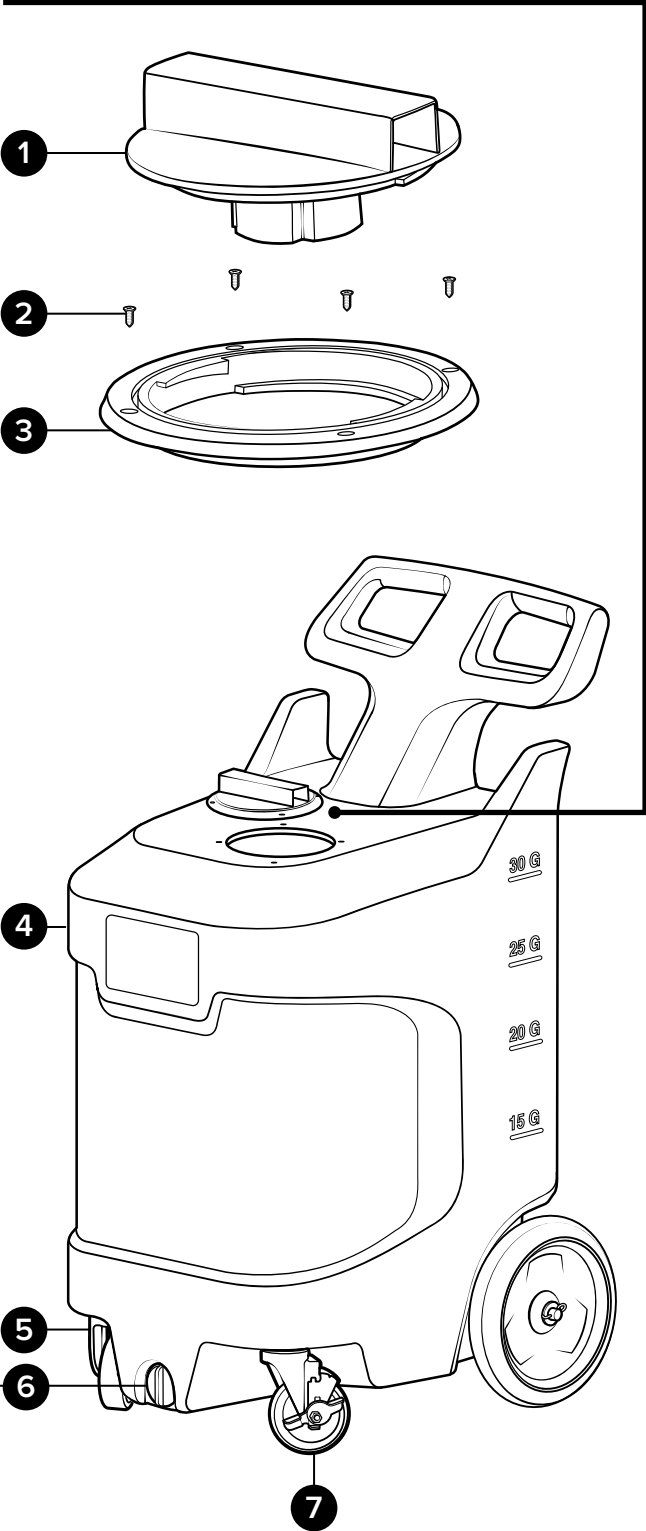
LDA-5BK:

Lid assembly - includes 5 in. black lid, lid flange, and mounting screws

Item number		Description
1	LD-5BK-LID	5 in. lid - polypropylene - black
2	S812-FH	#8 x ½ in. screw - stainless - flat head Phillips
3	LD-5BK-FLNG	5 in. lid flange - polyethylene - black

Item number		Description
4	TNK-30N-AM	30 gallon natural tank for portable air powered gel unit
5	CST5SS	Swivel caster - stainless - 5 in. clearance - 4 in. wheel
6	DPA	Drain plug assembly for portable units - includes gasket
7	CST5SS-L	Swivel caster - stainless - 5 in. clearance - 4 in. wheel - with lock

LDA-5BK



Tank Assembly

Back view

TNKA-30N-BK-AM:

30 gallon natural tank assembly for portable gel air motor units - includes black lid, drain plug, wheels, suction valve, and backplate thumb nuts

BPTNA:

Back plate thumb nut assembly - includes bolt, thumb nut, and tether

Item number	Description	
1	BST1420118-VS	Bolt - set - ¼-20 x 1 ½ in. - stainless steel - Vibra-Seal
2	TN1420	Thumb nut - ¼-20 x 1 ¼ in. - PP - brass insert - assembled with tether

VLVA-BVPVC34:

Suction valve assembly - includes ¾ in. PVC valve, bushing, ¾ in. hose barb elbow, and screw band clamp

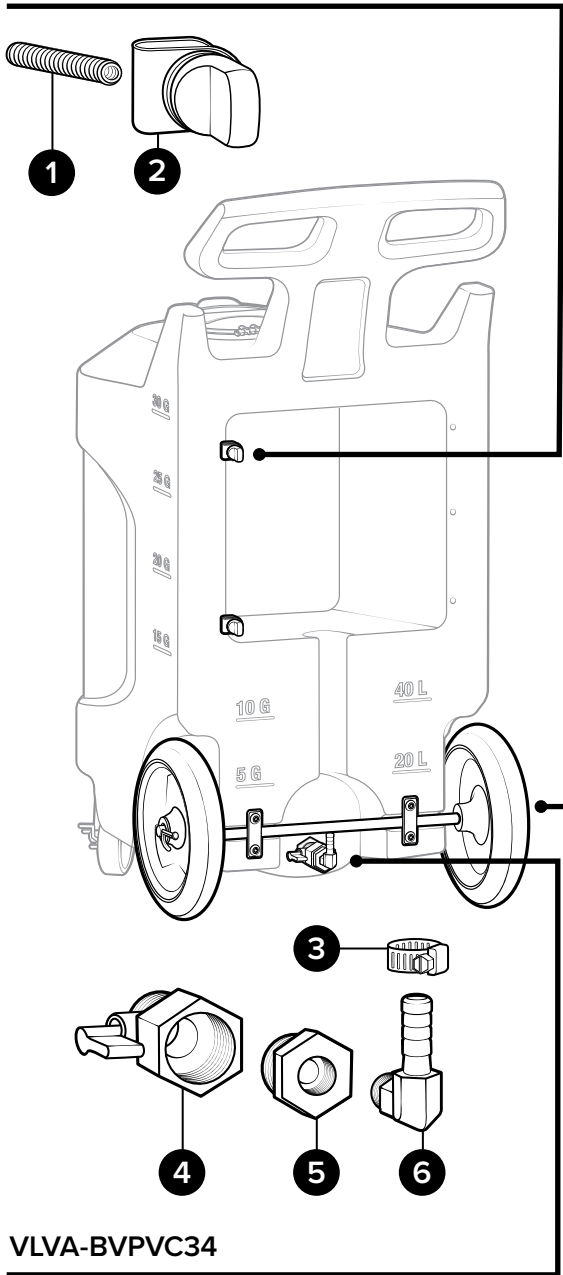
Item number	Description	
3	SSC38	Screw band clamp - stainless steel - for ¾ in. hose
4	BVPVC34MF	Ball valve - PVC - ¾ NPT to ¾ FNPT - Buna seal
5	HHPB3414	Hex head poly bushing ¾ MPT x ¼ FPT
6	HBSSEL1438	Hose barb - stainless steel - elbow - ¼ in. MPT x ¾ in. barb

WHLA-AXL1812:

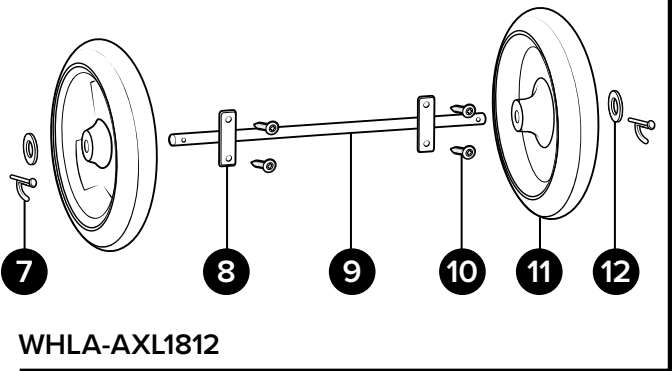
10 in. wheel assembly - includes 18.5 in. axle, axle plate, bolts, washers, and cotter pins

Item number	Description	
7	COT	Cotter pin - stainless steel - ⅛ in. dia x 1 in. long
8	PLSS-AXL	Axle plate - stainless steel - 2.5 in. x 1 in. - 2 holes
9	AXL1812	Axle - stainless - 0.625 dia. x 18.5 in.
10	B142012-VS	Bolt - ¼-20 x ½ in. - stainless steel - truss head Phillips - Vibra-Seal
11	W10	Wheel - 10 in. - non-marking
12	FW58	Flat washer for ⅝ in. od pipe or axle - stainless steel - 0.64 in. id x 1.2 in. od x 0.05 in. thk

BPTNA



VLVA-BVPVC34



WHLA-AXL1812

Back Plate Assembly

Inside view

PA-GI12-AM:

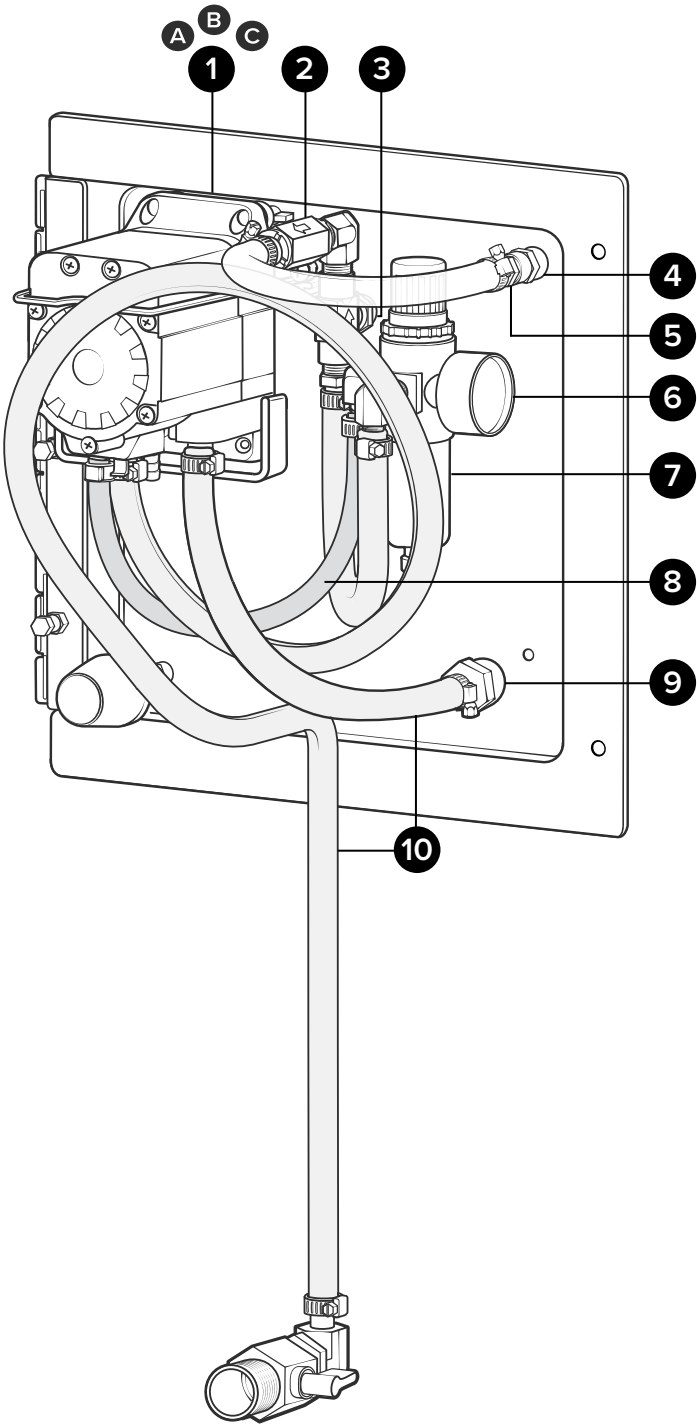
Plate assembly for portable gel air motor units with 1/2 in. hose - Santoprene pump

Additional plate assembly pump options:

PA-GI12K-AM: Kalrez pump

PA-GI12V-AM: Viton pump

Item number		Description
1	A P56	Pump with Santoprene seals - includes hose barbs, air fitting, and exhaust barb
	B P56K	Pump with Kalrez seals - includes hose barbs, air fitting, and exhaust barb
	C P56V	Pump with Viton seals - includes hose barbs, air fitting, and exhaust barb
2	CV1438	1/4 MPT x 3/8 barb - PVC check valve - SS spring
3	NV14	Needle valve - 1/4 in. NPT - includes black knob
4	SC1414	Stainless pipe coupler - 1/4 in. x 1/4 in.
5	HBSS1438	Stainless hose barb 1/4 MPT x 3/8 barb
6	AG100	Air gauge - 1/8 in. NPT - 0-100 PSI markings - dry model
7	R25	Air regulator - two 1/4 in. FPT ports - two 1/8 in. FPT ports - includes filter and bowl
8	H14BL-F	1/4 in. blue hose - hybrid TPE - available per ft.
9	HBFSS1238	Stainless steel hose barb 1/2 FPT x 3/8 barb
10	H38BL-F	3/8 in. blue hose - hybrid TPE - available per ft.



Back Plate Assembly

Back view

PA-GI12-AM:

Plate assembly for portable gel air motor units with ½ in. hose - Santoprene pump

Additional plate assembly pump options:

PA-GI12K-AM: Kalrez pump

PA-GI12V-AM: Viton pump

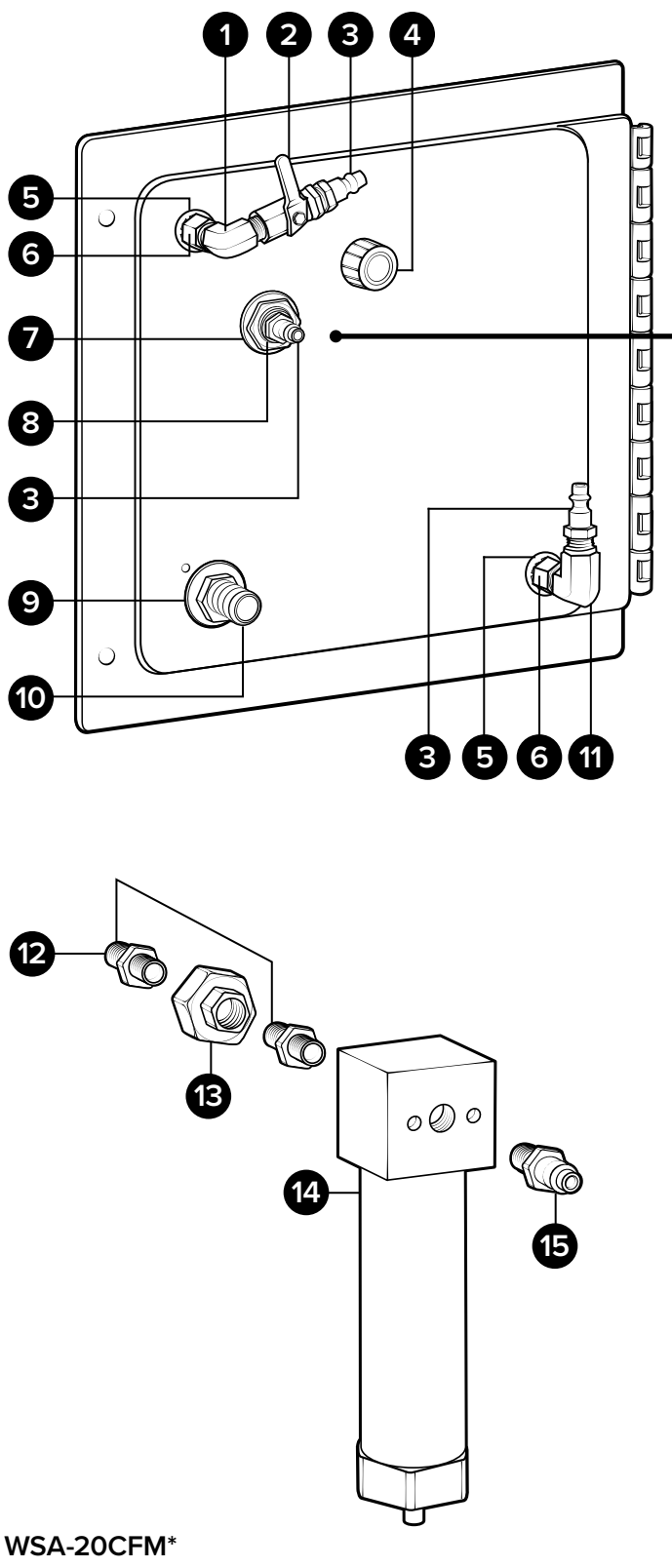
Item number	Description	
1	SEL14M	Stainless elbow ¼ in. MPT x ¼ in. MPT
2	BVB14	Ball valve - brass - nickel-plated - air inlet valve - ¼ in. FPT x ¼ in. FPT
3	AP14	Air fitting - ¼ in. MPT quick disconnect hose coupling plug - nickel-plated brass
4	NV14-HNDL	Black knob for needle valve
5	TW14NPT	Tooth lock washer for ¼ in. NPT - stainless - 0.56 in. id x 0.96 in. od x 0.06 in. thk
6	SSA14	Stainless adaptor ¼ MPT x ¼ FPT
7	SSSFN12	Serrated flange nut - stainless - ½ in.
8	SSA14BKH	Bulkhead adapter - stainless - ¼ NPT x ¼ NPSM
9	FW12NPT	Flat washer for ½ in. NPT - stainless - 0.88 in. id x 1.5 in. od x 0.05 in. thk
10	HBSS1212	Stainless hose barb ½ MPT x ½ barb
11	SSE14	Stainless street elbow ¼ in.

Optional Components

WSA-20CFM:

Water separator assembly - 20 CFM - ¼ in. FPT ports - includes air plug and union fittings

Item number	Description	
12	SN1414	Stainless hex nipple ¼ MPT x ¼ MPT
13	SSU14	Stainless steel union - ¼ in. FPT
14	WS-20CFM	Water separator - 20 CFM - ¼ in. FPT ports
15	AP14	Air fitting ¼ MPT x plug - nickel-plated brass



WSA-20CFM*

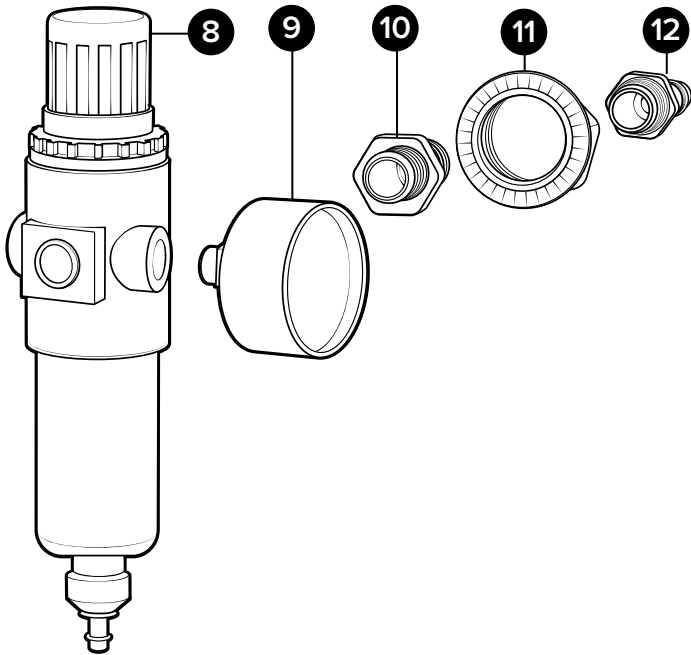
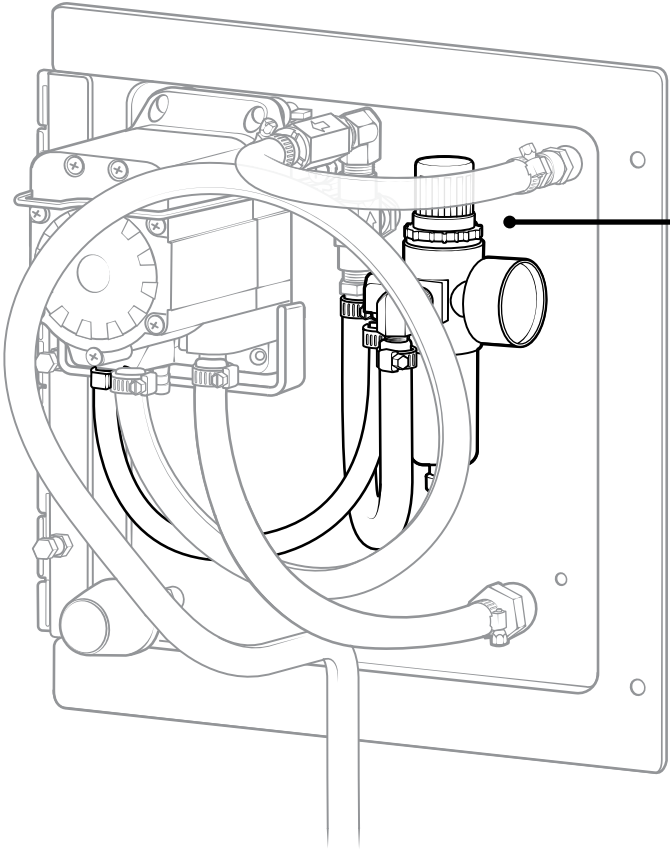
*Optional assembly sold separately

Back Plate Sub-assemblies

RGA-R25-PF:

Air regulator assembly for portable gel units - includes air gauge, pump barb, hose, bulkhead fittings, and air plug

Item number	Description	
1	HBB14P	¼ in. hose barb - brass - for G57/P56 air fitting with o-ring
2	EC14	Oetiker clamp for ¼ in. hose
3	H14BL-F	¼ in. blue hose - hybrid TPE - available per ft.
4	HBSEL1814	Stainless hose barb ⅛ MPT x ¼ barb elbow
5	SSC38	Stainless screw band clamp for ⅜ in. hose
6	H38BL-F	⅜ in. blue hose - hybrid TPE - available per ft.
7	HBSEL1438	Stainless hose barb ¼ MPT x ⅜ barb elbow
8	R25	Air regulator - two ¼ in. FPT ports - two ⅜ in. FPT ports - includes filter and bowl
9	AG100	Air gauge - ⅜ in. NPT - 0-100 PSI markings - dry model
10	SSA14BKH	Bulkhead adapter - stainless - ¼ NPT x ¼ NPSM
11	SSSFN12	Serrated flange nut - stainless - ½ in.
12	AP14	Air fitting - ¼ in. MPT quick disconnect hose coupling plug - nickel-plated brass



RGA-R25-PF

Hose Assembly

HA12BL-30:

Hose assembly - 30 ft. of ½ in. blue* hose - includes ferruled hose barb, and screw band clamp

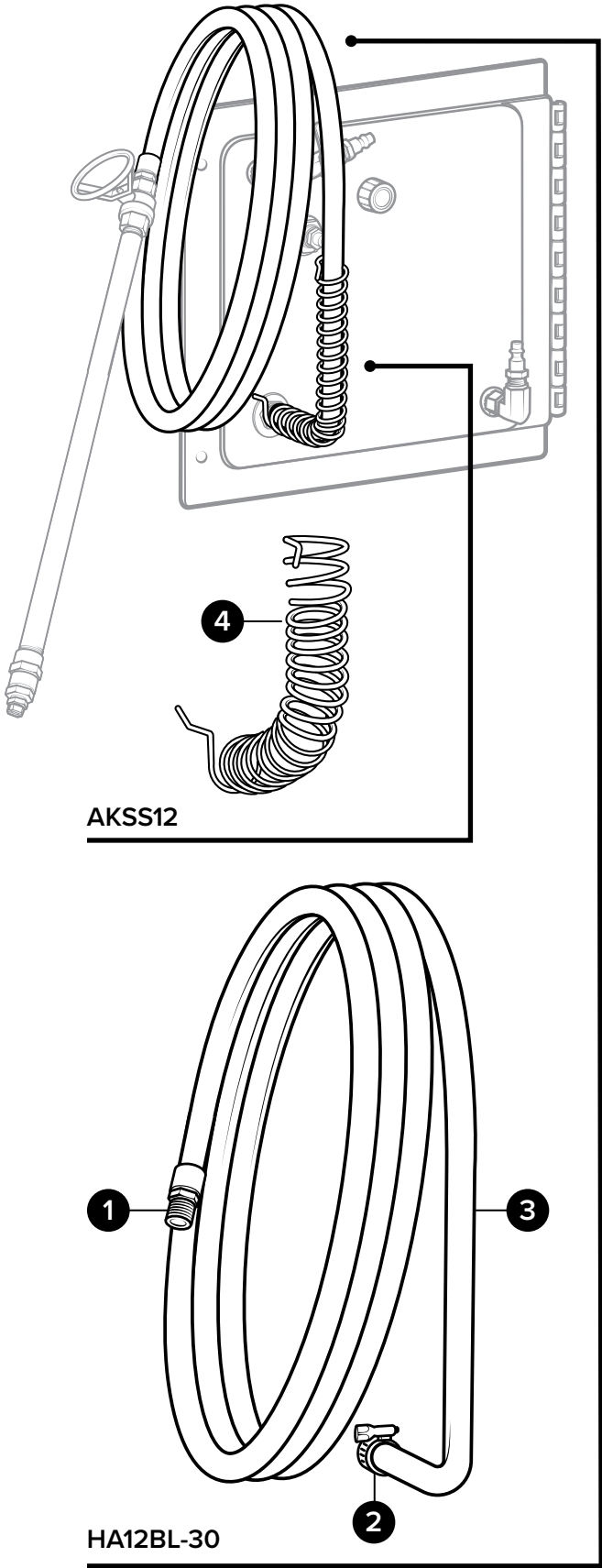
Item number		Description
1	HBSS1212	Hose barb - stainless steel - ½ in. MPT x ½ in. barb
2	SSC12	Screw band clamp - stainless steel - for ½ in. hose
3	H12BL-F	½ in. id blue* hose - hybrid TPE - available per ft.

* Additional colors available, see datasheet for options.

AKSS12:

Stainless anti-kink spring for ½ in. hose

Item number		Description
4	AKSS12	SS anti-kink spring for ½ inch hose



Air Motor Assembly

AIRMTRA-GEL-PRP:

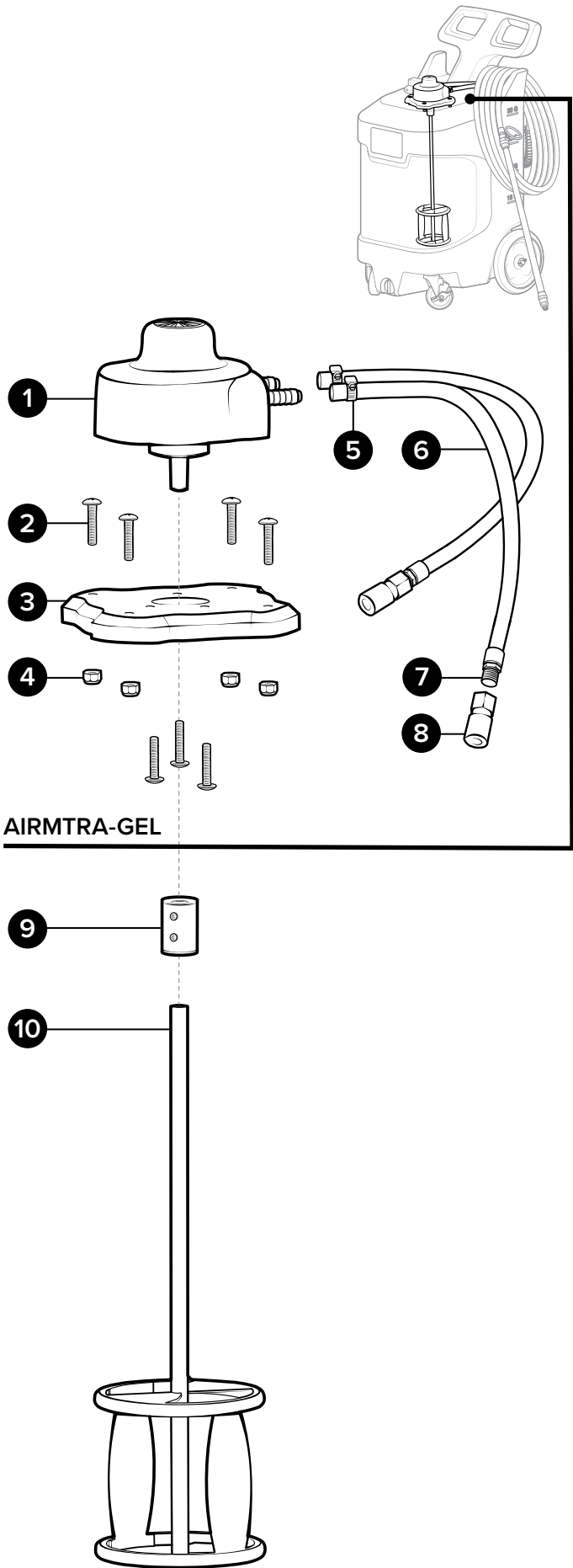
Air motor assembly for portable gel air motor units - includes air motor, coupling, and prop and shaft

AIRMTRA-GEL:

Air motor assembly - includes motor, quick connects, hose, hose barb, screw band clamps, bolts and locknuts

Item number		Description
1	GEL-MTR	Gel motor - air operated - lube free includes 2x SS hose barbs
2	B1420114-PH	Bolt - ¼-20 x 1 ¼in - stainless steel - pan head phillips
3	PL-GEL-MTR	Plate for TNK-30N-AM (gel motor mount) - PL-4X8-¾- white
4	LN1420	Locknut - ¼-20 - stainless steel - nylon insert
5	SSC38	Stainless screw band clamp for ¾ in. hose
6	H38BL-F	¾ in. blue hose - hybrid TPE - available per ft.
7	HBSS1438	Stainless hose barb ¼ MPT x ¾ barb
8	QCB14F-SCKT-AP14	Quick connect socket - brass body - ¼ in. FNPT - no check

Item number		Description
9	CP1212	Coupling - ½ in. x ½ in. shafts - stainless
10	GEL-PRP	Prop and shaft for gel air motor units - stainless



Wand Assembly

SSWA1224-ST-GEL:

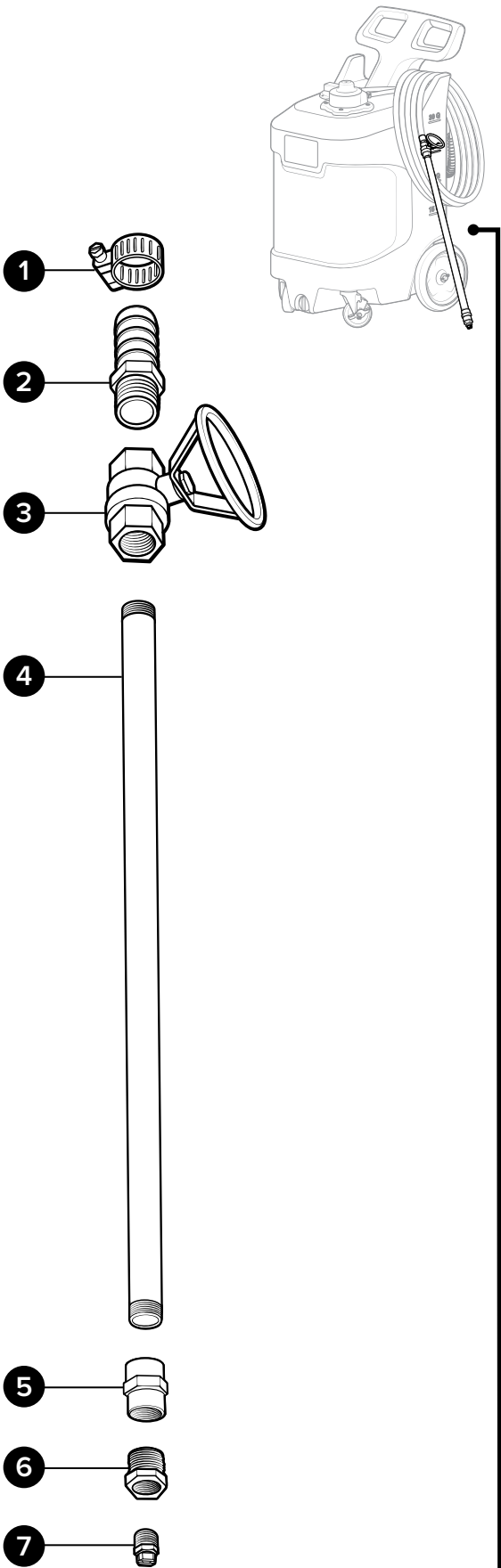
Stainless wand assembly for portable gel units with ½ in. hose - includes 24 in. stainless wand, ST2520SS spray tip, stainless ball valve, coupler, and bushing

Item number		Description
1	SSC12	Screw band clamp - stainless steel - for ½ in. hose
2	HBSS1212	Hose barb - stainless steel - ½ in. MPT x ½ in. barb
3	BVSS12	Ball valve - SS body - 2x ½ in. FNPT - PTFE seat and seals - blue PVC coated oval handle
4	SSN1224	½ in. NPT SCH40S pipe nipple - stainless 24 in. long
5	SC1212	SS coupler ½ in. x ½ in.
6	HHSB1214	Hex head stainless bushing ½ MPT x ¼ FPT
7	ST4008SS	Spray tip - 40 degree fan - 0.8 GPM - stainless - ¼ MPT

Additional Spray Tips

Additional spray tips can be found in parts package

Item number		Description
8	ST1510SS	Spray tip - 15 degree fan - 1.0 GPM - stainless - ¼ MPT
9	ST2520SS	Spray tip - 25 degree fan - 2.0 GPM - stainless - ¼ MPT



SSWA1224-ST-GEL